

ABSTRACT

The main body of the Internally Resilient Tie, the tie case (1), includes two recesses to receive two independent blocks (2), enclosed in rubber boots (4), equipped with standard rail fasteners (7) and protected with hard standard rail pads (5), one block (2) under each rail (3). The bottom elastomer (6) is located inside the boot under the block. In a sequence of Internally Resilient Ties, the masses of the blocks (2) and the spring rates of bottom elastomers (6) can vary. Block retainer assemblies, consisting of components (8) through (16), keep the blocks in the tie case (1) when the Internally Resilient Tie is lifted by rails while allowing small movement of the blocks upward. A non-metallic insulating collar (12), overhanging the edge of the block and sloping down, is placed around the upper perimeter of each block.